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Mali, Water and Sanitation

Water and sanitation has been an issue all around the world for decades. Many people on this earth have trouble getting clean water, or even water at all. Africa is a hot topic when it comes to water and sanitation, Mali is a country located in the northwestern part of Africa, being slightly less than twice the size of Texas, it is known as one of the hottest places on earth. Mali's government is based on a semi-presidential republic. With most of northern Mali being in high climate deserts, water is very important to maintain healthy people in these areas. Although Mali contains two major rivers and 17 large lakes, much of the water is not in the condition to be drunk, or sometimes even used in agricultural. With a population of just over 16 million, it is concerning to know that 4.5 million do not have clean water (WaterAid Global). Although that is only 25% of the population, it is still a high number of people. According to the World Bank Collection of Development, in 2016 it was reported that the urban population of Mali was 40.68% (Mali-Urban Population). The healthiness of human life is so valuable and in Mali health has been a growing concern.

A typical family in Mali looks a little different than what most Americans would have in their homes or see in the United States. Grandparents, children, aunts, uncles and cousins all live under the same roof, and that's completely normal. Men take care of the family and women mainly stick to household chores. Over three quarters of the country relies on farming as their main employment. In the urban areas of Mali, meals can be eaten together as a family, or separately, all depending on the family's schedule. As for the rural areas, families eat together during all three meals of the day. Family members are allowed to spend time by themselves, participate in their own activities, and to socialize with friends and relax. The average Mali woman, will birth six children throughout her life. As the children grow up they are responsible for keeping up with academics, helping take care of the home, and taking care of his or her bedroom. Girls generally help their mothers with household chores and boys help their fathers with the outdoor activities and chores. In rural areas women do most of the work and men are responsible for financial business and ensuring there is enough food for the family. When the children are old enough to attend school, they have the option of going to a private or public school, just like the U.S. it is up to the parents to decide. Private schools make their students attend in a uniform, while public schools are a little bit more lenient on dress code, although they still must look presentable. In most schools the children stay in the same classroom and teachers move from class to class.

With Mali being one of the poorest countries in the world, over half of the population lives on less than \$1.25 a day and is living below the poverty line (Mali-World Food Programme). This shows how malnutrition is common. More than a quarter of children in Mali are underweight, and that's why it isn't surprising that the child and infant mortality rates are high. Malnutrition is a serious issue, and 25% of families in Mali are moderately to severely food-insecure. In 2016, around 2.5 million people in Mali were considered food-insecure, with 315,000 experiencing severe food insecurity (Mali-World Food

Programme). "Access to health care is still a critical issue for people in the north of Mali," said Christoph Luedi, head of the ICRC delegation in Mali (UNICEF). After the collapse in public services in 2012, health facilities were no longer able to perform their tasks the normal way they do. The hospital in Gao (the main medical facility in the north part of the country) has been running since May 2012 and ICRC has been regularly supplying the medicines and medical supplies the hospital needs. As a result, most patients at the hospital receive free care (Mali-ICRC).

80% of Mali's population relies on farming or agricultural for a living, despite most of the country having very little rain and frequent droughts. With little rainfall, it makes it quite difficult to grow and income and make a living. Farms are a huge part of the agricultural landscape of Mali. Millet, rice, and corn are the three basic food crops grown in Mali. Paddy rice is cultivated on [irrigated](#) farms and cereals are produced by 90% of farmers. [Peanuts](#), cotton, fruits, vegetables, and henna are all produced in Mali. In 1999, cereal production was estimated at 2,149,000 tons (Mali-Agricultural). The [Niger](#) Office, (an agency set up to help improve cotton and rice production in 1932), helped develop the irrigation of some 200,000 acres in the dry delta of the Niger. In 1998, approximately 341,000 acres in Mali were irrigated (Mali-Agricultural). A structure that includes a dam that is over a mile and a half long, irrigation canals, and ditches. Installations of housing stores, warehouses, rice and oil mills, cotton factories, sugar refineries, soap factories, research stations, and schools were built. Growing cotton in irrigated fields did not succeed and was abandoned in 1970 and now all cotton is grown in non irrigated fields (Mali-Agricultural).

Water and sanitation has mostly affected agricultural productivity. With such little rainfall, water is a very scarce resource that Mali needs but does not have very much of. Not only do us humans need water for everyday life, like drinking and personal hygiene, but irrigation is a very important system in the country of Mali. Water is needed to keep up with everyday life. With 80% of Mali's population using agricultural and farming as a occupation to continue living, it's very important to keep those plants and farm lots well watered and taken care of. Without crops, they will make no income, and will have trouble with everyday tasks and healthy living. Water impacts everything, everywhere. It even impacts homes, and the people in it. Families are impacted dramatically through water and sanitation. Water and basic hygiene are so important to a healthy lifestyle. Clean water, basic toilets and good hygiene practices are essential for the survival and development of children. Without these basic needs, the lives of millions of children are at risk. For children under five, water and sanitation related diseases are one of the leading causes of death. In Mali, over 4000 children die from preventable diseases caused by poor water, and lack of sanitation and hygiene. In Mali, it is estimated that only 57% of schools have sanitation facilities and only about 12% of these schools have separate toilets for girls and boys. Only 30% of people in Mali have a decently clean and/or working toilet (WaterAid Global).

Mali's current status of clean water and overall sanitation are at a crucial point. Although many programs, including the IRCR (International Committee of the Red Cross) are trying and doing their best work of helping, they can only help so much. Mali continues to have a constant problem. Most villages in Mali have hand pumps and wells, but many no longer work from the lack of maintenance (SOURCE). This

puts a lot of pressure on the small amount of pumps that still function, and as a result, a large amount of people are taking risks to collect water. Women of Malian families have been pushed to walk miles of desert to obtain small amounts of water, or taking it from the river, which only adds to the risk of diseases and contamination. When the rainy season is underway, it makes rivers that much more likely to spread illnesses. If a river has been identified as a possible source of contamination, ICRC and other helpful programs will try to get access to clean and accessible water. As of 2012, ICRC says that even with years of trying to improve water and sanitation, it remains a large issue across the country, particularly in the north.

Improving water and sanitation to the country of Mali could potentially change the country entirely. With cleaner water and sanitation, agricultural business could be booming. With Mali strictly relying on farming, importing and exporting are a major source of income. With more clean water throughout the country, it could change that completely. More exports may be interested in Mali's goods. Since they have clean water, their farming would be much healthier and they would have better product quality. Improving water and sanitation would also impact families. The better the water, the healthier the people, and when people are healthier they will be making less trips to the hospital. Programs throughout the country have benefited Malians with a lot of help when it comes to healthcare, but hospitals with medicine will never always be free, so less trips to the hospital will give many families more money to invest in other things like food and other expenditures. Water and sanitation are not just based off of one problem, much of the main issue has underlying facts that build up to become a bigger issue or complication. Weather is a big contributor to water and sanitation issues. Mali's extreme weather patterns are partially responsible for underlying problems. With so many frequent droughts and flash floods, these can lead to poor harvested crops and lots of soil erosion. Natural disasters limit the number of job opportunities and this can really set a family back financially, and many families in Mali, don't have room to be set back. Another major issue that contributes to water sanitation is the government and other "radical groups" (BORGEN). With more than 10,000 people that have been displaced in the violence, thousands have been cut off from basic resources, including water.

My topic connects to food security in every aspect on my paper. Water plays such an important role in everyday life with everyday people, all around the world. With food production and agricultural being the biggest job opportunities this country offers, it connects to food security in every possible way. According to the US Agency of International Development, the levels of food insecurity will increase between March and May because of cereal prices uprising. They also projected that 795,000 Malians will likely face worse levels of food insecurity between June and August 2018 (Food Assistance). There are many ways and things we can do to help crisis's like these all around the world, and it often takes patience and hard work to even improve the slightest bit. Many programs have reached out to families and villages that live in the heart of Mali, although years of dedication and help have been given to the civilians of Mali, there still seems to remain underlying problems. We obviously have not developed the ability to change weather patterns, and when weather isn't your friend, that can be a hard thing to face. Other than taking on the things we can't change or fix, we should focus more on the areas we can change. After a visit to the South American country of Nicaragua, I learned that bringing in the solution, doesn't actually help the issue. Finding a solution to these factors connect to education and learning, not giving. By bringing in

sanitation systems into countries like Mali won't change the problem at all. We need to educate the people of Mali, and show them change. When it comes to food security, giving civilians food to keep them full does not show or teach them anything. People need to learn through hard work that things can change. Showing them how things can change may change the attitude of the people and could truly change the circumstances some of these people are living.

There are many projects reaching out to the people of Mali, and a majority of the programs I have found are doing exactly what I have learned not to do, and that is to give. Education is one of the most important things that can be taught when it comes to worldwide issues like these. I think a solution to this type of circumstance is education and experience. We need programs that are willing to travel to the country of Mali, and face the problems they have every day. Finding solutions to unfortunate situations like these are hard to wrap the mind around, but they are real issues that we must talk about and fix. People should not be living in these types of conditions. Throughout the past two weeks, I have learned a lot about Mali's situation and how lucky I am to end up where I am. In my eyes, education is a solution to many problems in this world, and should be dispersed into these worldwide issues more than they already are.

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